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(71) Applicant: **TSUGAYA KENJI NISSHIN:KK**

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(72) Inventor: **TSUGAYA KENJI**

(54) **MOLD MATERIAL FOR CASTING TITANIUM OR TITANIUM ALLOY**

(57) Abstract:

PURPOSE: To attain easily thorough dimensional compensation by mixing preliminarily metallic powder which does not generate gas into a mold material, oxidizing the metallic powder in the stage of heating the mold and utilizing the expansion resulted from the oxidation.

CONSTITUTION: The metallic powder which does not generate gas in the stage of hardening and heating the

mold material and has the smaller free energy for forming oxide than titanium or titanium alloy is added into the magnesia mold material. The metallic powder is then oxidized in the stage of heating the mold and the volume of the mold is increased by the oxidation, by which the mold is expanded in volume over the entire part. The casting conforming to the prototype is thereupon obtd. even if the molten metal cools down to a room temp. and shrinks dimensionally. The thorough dimensional compensation is thus attained.

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